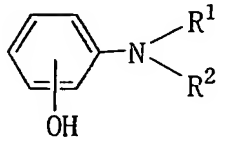
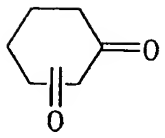
CLAIMS

1. A method of producing an aminophenol compound represented by the formula (1)



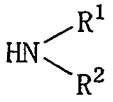
(1)

(wherein each of $R^1$ and $R^2$, which may be the same or different, is a hydrogen atom, a substituted or unsubstituted lower alkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocycle; $R^1$ and $R^2$, taken together with the adjacent nitrogen atom, may form a 5- or 6-membered heterocycle with or without other intervening heteroatoms; the heterocycle may be substituted by 1 to 3 substituents selected from the group consisting of a hydroxyl group, a substituted or unsubstituted lower alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aryloxy group, a substituted or unsubstituted heterocyclic group and a substituted or unsubstituted heterocyclic group-substituted oxy group; and the hydroxyl group in the formula (1) is substituted on the 2- or 4-position to the amino group on the phenyl ring), which comprises allowing a cyclohexanedione compound represented by the formula (2)



(2)

to react with an amine compound represented by the formula (3)



(3)

(wherein $R^1$ and $R^2$ are as defined above), under a neutral or basic condition.

2. The method according to claim 1, wherein each of $R^1$ and $R^2$, which may be the same or different, is a hydrogen atom; a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom, a hydroxyl group, a substituted or unsubstituted aryl group and a substituted or unsubstituted heterocyclic group; an aryl group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; or a heterocyclic group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from

the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms;

$R^1$ and $R^2$, taken together with the adjacent nitrogen atom, may form a 5- or 6-membered heterocycle with or without other intervening heteroatoms; and

the heterocycle may be substituted by 1 to 3 substituents selected from the group consisting of a hydroxyl group; a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom, a hydroxyl group, a substituted or unsubstituted aryl group and a substituted or unsubstituted heterocyclic group; an aryl group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; an aryloxy group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; a heterocyclic group which

may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; and a heterocyclic group-substituted oxy group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms.

3. The method according to claim 2, wherein each of $R^1$ and $R^2$, which may be the same or different, is a hydrogen atom; a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom, a hydroxyl group, a substituted or unsubstituted aryl group and a substituted or unsubstituted heterocyclic group; an aryl group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl

group, and halogen atoms; or a heterocyclic group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms.

4. The method according to claim 2, wherein $R^1$ and $R^2$, taken together with the adjacent nitrogen atom, may form a 5- or 6-membered heterocycle with or without other intervening heteroatoms, and the heterocycle may be substituted by 1 to 3 substituents selected from the group consisting of a hydroxyl group; a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom, a hydroxyl group, a substituted or unsubstituted aryl group and a substituted or unsubstituted heterocyclic group; an aryl group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; an aryloxy group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from

the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; a heterocyclic group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms; and a heterocyclic group-substituted oxy group which may have 1 to 3 substituents selected from the group consisting of a lower alkyl group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, a lower alkoxy group which may have 1 to 3 substituents selected from the group consisting of a halogen atom and a hydroxyl group, and halogen atoms.

5. The method according to claims 1 to 4, wherein the aryl group is a phenyl group or a naphthyl group; the aryloxy group is a phenoxy group or a naphthyloxy group; the heterocyclic group is a 5- or 6-membered saturated or unsaturated heterocyclic group; and the heterocyclic group-substituted oxy group is an oxy group substituted by a 5- or 6-membered saturated or unsaturated heterocyclic group.

6. The method according to claim 1, wherein the

aminophenol compound is 1-(4-hydroxyphenyl)-4-(4-trifluoromethoxyphenoxy) piperidine, 1-(4-hydroxyphenyl)-4-hydroxypiperidine, 1-(4-hydroxyphenyl)piperidine, 1-(4-hydroxyphenyl)-4-methylpiperazine, N-(4-hydroxyphenyl)-N-methylaniline, N-(4-hydroxyphenyl)aniline or N-(4-hydroxyphenyl)dibenzylamine.

7. The method according to claims 1 to 6, which is conducted in the presence of a dehydrogenating agent, wherein the dehydrogenating agent is used in an amount of at least 1% by weight based on an amount of the amine compound of the formula (3).

8. The method according to claims 1 to 6, which is conducted without a dehydrogenating agent.

9. The method according to claims 1 to 6, which is conducted under a neutral condition.

10. The method according to claims 1 to 6, which is conducted in the presence of a basic compound, wherein the basic compound is used in an amount of 0.5 to 5 mole based on 1 mole of the amine compound of the formula (3).

11. The method according to claims 1 to 6, wherein the reaction is conducted at a reaction temperature of room temperature to 150°C.

12. The method according to claims 1 to 6, wherein the cyclohexanedione compound of the formula (2) is used in an equimolar amount to 10 mole based on 1 mole of the amine compound of the formula (3).